

*On the Origin of Species.* By CHARLES DARWIN, M.A.  
8vo. 1859.

A few years ago the fashionable topic of discussion was whether there are other inhabited worlds than this earth on which we tread. A sharp controversy grew out of the discussion, the combatants being arranged in two bands, the advocates and the opponents of the doctrine of the plurality of worlds. Many learned and instructive books and essays were produced on both sides, and the victory remained undecided, if it were not on the side of the pluralists. However that may be, we now hear but little of this exciting controversy. We are met now by discussions on the origin and changes of the species of all existing and past animals and vegetables; under what primary forms they first appeared, the changes they have undergone, and the causes of those changes.

It is to Mr. Darwin that is due what reputation may accrue from having recently directed public attention in this direction. The work, the title of which stands at the head of this article, has attracted great notice from naturalists. It contains new views, or such modifications and extension of views that have lately gained some ground, that it cannot fail to arouse the reflecting mind to a consideration of the argument it is intended to support. The mass of facts it contains will create some surprise. The work itself is incomplete, being but the first instalment of an extended treatise.

To the student of natural history there are few subjects so perplexing as the determination of species. Species being in fact an abstract ideal, not a real and substantive form, we are not to be greatly surprised if we find naturalists at variance as to what particular species an individual animal or plant may belong. We do not say that there would be any difficulty to the merest superficial observer in classifying horses, dogs, cats, elephants, daisies, roses, or palm trees, but there are minuter forms and less obvious diversities which would render it less easy to determine whether they were specific differences or mere varieties, *e.g.*, the uninitiated would perhaps not classify roses with apples,—yet both are of one species. Although it may be contended that there is no such thing as a species, yet there is the idea represented by the word species, just as much as there is no *thing*, no concrete substance, which we can touch or handle, as material bigotry or prejudice, yet there is the clear and intelligible idea of the narrowness of mind which can approach to the consideration of no subject but in its own way, and will look at nothing but from its own point of view, according to the formula, "heterodoxy is your doxy, orthodoxy is my doxy." No one looks upon a horse, a dog, an elephant, a daisy, or a rose, as a species, but every one moderately acquainted with his own language understands what is meant by saying these are individuals of different species, and few indeed would be likely to confuse the specific characters of a gazelle with those of the hippopotamus. Active indeed must be the imagination that could conceive of any combination of circumstances by which the one should become transmuted into the other. Still there is nothing to disprove the possibility of such a metamorphosis in some vast and indefinite lapse of time. Analogy, however, is opposed to any such conclusion. The bones of animals, and the leaves and wood of trees, that are found in rocks and coal mines, present the same general features and the same minute structure as are exhibited in similar species now living and growing on the face of the earth; and yet, if time be an element in the change, surely we should have found variations. The identity of the species of cats, birds, beetles, and other animal and human remains found in the tombs of Egypt, is commonly cited as evidence of the immutability of species; but what are the few thousands of years that have elapsed since these were encased in stone, as compared with the myriads of thousands, yea, perhaps millions of ages, that have elapsed since these were consigned to their graves in the rocks.

The doctrine of the transmutationists, as expounded in Mr. Darwin's book, is that changes in external physical conditions affect the character of those species which are not well suited to resist those influences, and give rise to greater or less variations. That these influences, operating through incalculable periods of time, the few species able to resist them would survive; while the other, or feebler species, have become extinct; thus immense gaps have arisen and given rise to the theory of occasional new



